

Models Linking Habitat and Salmon Production: A Technical Workshop

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PARTICIPANTS:

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OBJECTIVE:

- Describe the general model requirements and generate a data "wish list" for assessing critical habitat;
- Describe how model output might be applied to recovery plans

General Modeling Characteristics:

- Identify existing AND potential critical habitat;
- define assumptions;
- define limitations;
- clearly provide uncertainty surrounding any given output;
- species specific where necessary;
- multiple models for the various components – life history, habitat use, etc. (statistical, mechanistic, etc.);
- incorporate spatio-temporal variability;
- spatially explicit;
- 6th field HUC spatial scale, but must address interspecific differences;
- capable of scaling-up or extrapolating to well characterized areas to relatively uncharacterized areas.

Data "Wish List" and/or Requirements:

- spawning ground counts;
- stream habitat surveys;
- habitat and fish linkages;
- survival (egg to parr, outmigrating to returning adult, etc.);
- smolt production;
- habitat restoration evaluation and monitoring;
- suite of habitat characteristics (land use, landform, climate, i.e., CLAMS, Bilby et al., ICBEMP, etc.);
- historical land use/land cover;
- flow, discharge;
- field validation where necessary;
- *socioeconomic projections;
- *network analysis (straying, migration corridor conditions, etc.)

Application to Recovery Plans:

- generally, provides a "picture" of what a basin should look like in order to be restored;
- spatially explicit delineation of existing and potential critical areas;
- identify deficiencies within a given critical area, i.e., low wetland area, high grazing, etc.;
- provides tangible solutions at intended scale;
- facilitates prioritization of recovery areas.

Compiled by Blake Feist, 093099

*Additional ideas incorporated from participants at synthesis